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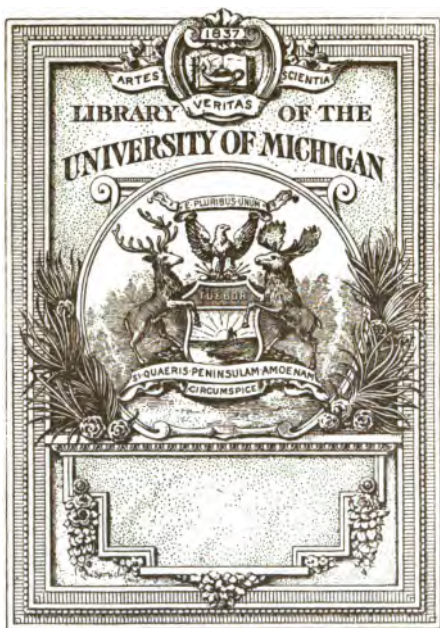
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ITALIAN ARCHITECTURE

BEING A BRIEF ACCOUNT OF ITS
PRINCIPLES AND PROGRESS

BY

J. WOOD BROWN, M.A.

Author of

"THE DOMINICAN CHURCH OF SANTA MARIA NOVELLA"

"THE TUSCAN ARCH," ETC. ETC.

A. SIEGLE

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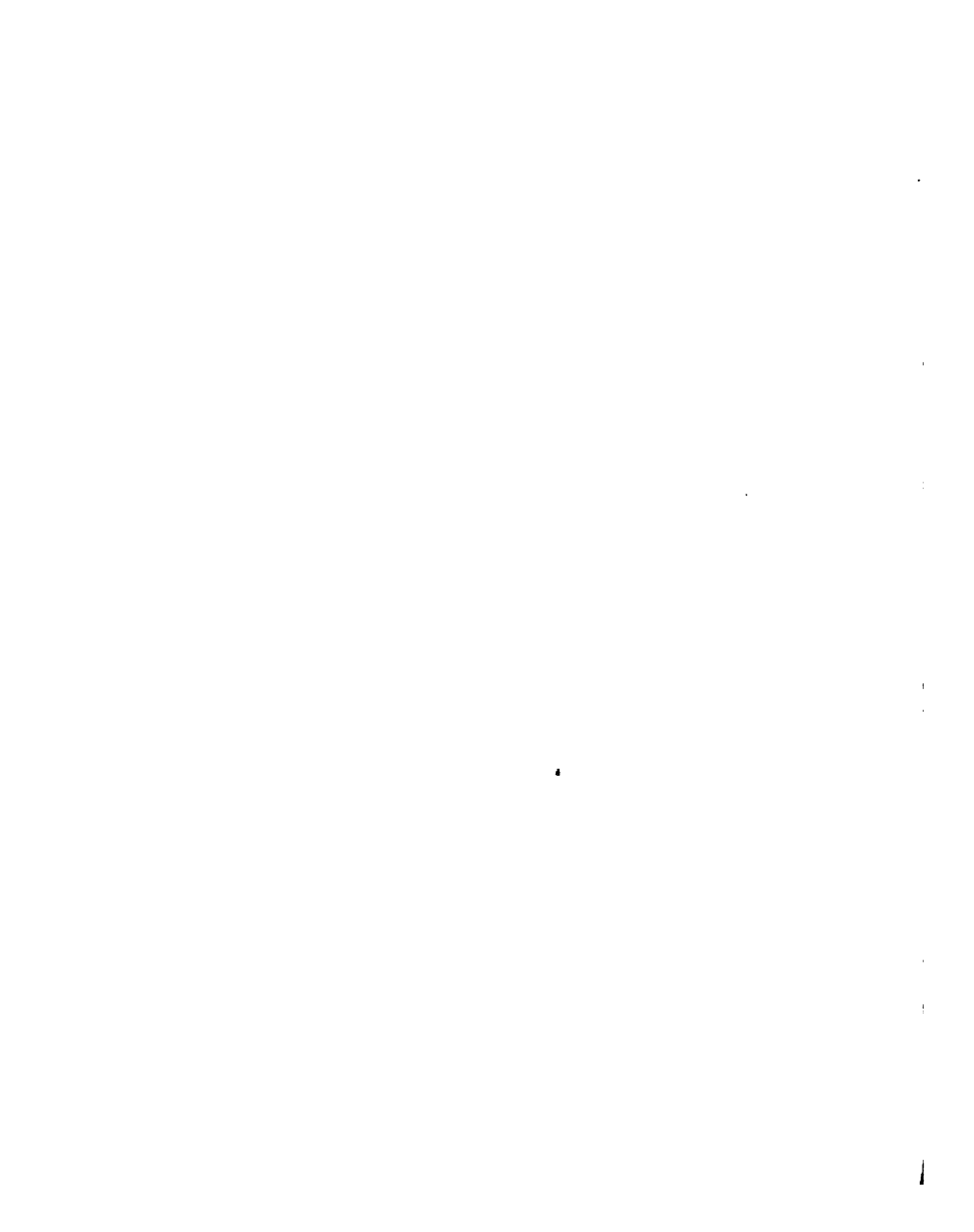
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PART I
THE GRAMMAR OF ¹³ITALIAN ARCHITECTURE, IN A STUDY OF ITS ELEMENTS AND THEIR EARLY GROUPINGS



CHAPTER I

THE ARCHITECTURE OF ROME

AUTHORITIES : Vitruvius, *De Architectura*, of the Augustan Age; Pliny, *Historia Naturalis*, A.D. 23-79; Frontinus, *De Aquæductibus Romæ*, temp. Trajan; Palladio, *Libri dell' Architettura*, and *Terme*, 1570; Piranesi, *Magnificenza* and *Antichità Romana*, 1756-66; Rondelet, *Traité théorique et pratique de l'art de bâtir*, 1861; Promis, *Gli Architetti e l'Architettura presso i Romani*, in *Mem. Reg. Accad. Torino*, 1883; Lanciani, *Ancient Rome*, 1888; Middleton, who follows the work of Rondelet in his *Remains of Ancient Rome*, 1892, where a very full bibliography will be found.

THE high civilisation of Rome, and the great technical skill brought by the Romans to the task of supplying such needs as this civilisation had made imperative, resulted in the use, adaptation, or discovery by them of a very large number of imposing architectural forms: some religious, as the temple and tomb; but more designed to meet the requirements of private or civic

life, in the house, the palace, the villa, the *thermae*, or baths; the aqueducts, bridges, roads, and gates; the *fora*, or markets and places of meeting, the porticos for merchants, the *basilicas*, or courts of justice, the *curia*, for the senators, the triumphal arches and memorial columns, the circus, the theatre and amphitheatre, where, finally, all that varied life gave itself to amusement, excitement, and display. From the Capital and the neighbouring Italian Provinces these forms went with the Roman eagles in every successive campaign; they appear in Spain and Africa, are found in Asia and by the Danube, in France and Germany; and even in our own Britain, at Wroxeter, Silchester, and elsewhere: abiding signs of a greatness which Italy is never like to see again.

To those who believe that architecture is essentially and inevitably the unconscious expression of a national spirit, this will seem the proper moment to say something of Roman character and Roman ideals. With a certain want of fancy, and what may be called spirituality of mind, this great people had an undoubted, almost oriental, sense for splendour, which led them to adopt and adapt to their own purpose whatever promised to favour the pompous and hieratic in the conduct of public life. Hence the public faith and practised ritual of Roman religion were largely borrowed from Etruscan and Greek sources; and so, very naturally, with the pomps and processions of Augur and Flamen, of priest and pontifex, came the buildings where these rites had traditionally found a home: temples, copied

at first from those of Etruria and then from Greek places of worship. In such a way were introduced to Rome what are called the "styles" of ancient architecture—the Tuscan, Doric, Ionic, and Corinthian—for which last the Roman, with his magnificent tastes, showed an instant and growing preference, using it largely, without much attention to the Hellenic restraint, and modifying it in sympathy with his own liking for the florid and the splendid.

But all this movement, though answering really to a certain part of the Roman character, and therefore deserving the passing notice we have given it, is somewhat one-sided and superficial: it leaves untouched the roots of life and the essence of the national character. The Roman was in reality nothing if not a practical man: his want of fancy and originality was fully compensated for by an almost unequalled sense of the facts of life and its immediate possibilities. So, behind the public ritual with its pomps and splendours lay the real Roman religion: a very different matter; a simple faith, yet powerful to guide the minds to which it was natural; a sense of the fundamental facts of human life; a *pietas*, born with the family in religious respect for family ties, and thence widening to embrace the State, the hearth of home kindling the fire of Vesta, and both subliming the sacrifice of Curtius and of many another devoted patriot. This was the true seat of Roman power, from whence their arms went forth to conquer the world.

To take account of the movements of such a

spirit in the matter of the building art—the lines it followed, the changes it brought, the results it attained—is to lay one's hand on the vital, the true, and the essential in the architecture of Rome. At the bidding of this practical sense some forms now appear for the first time on Italian soil—the bath, the aqueduct, the bridge—or at least acquire a dignity and importance unknown before. The Romans learn from Etruscan builders the art of constructing arches and vaults; and forthwith follows a system of drainage under the Forum, which finds its outlet to the Tiber by the *Cloaca Maxima*, and is in part not only extant, but operative still. The principle of the arch was deeply studied in the mechanics of its thrusts, for there is evidence to show that considerable buildings were raised by the Romans on advanced principles of art, where domes were set on pendentives as they were much later at Byzantium, and thrust met by thrust—of buttress or counterpoising arch—as in the system of a Gothic cathedral.

Yet it was not in any such direction that the Roman spirit found its fullest architectural expression. A simple but far-reaching discovery of early date was what served to put these builders on the line which they made definitely their own, and followed with such lasting splendour of success. The use of cement was ancient in the world, and well known to both Greeks and Etruscans. From them it passed, as their styles had done, to the Roman builders, who found excellent material ready to their hand in the volcanic *pozzolana* of the Campagna.

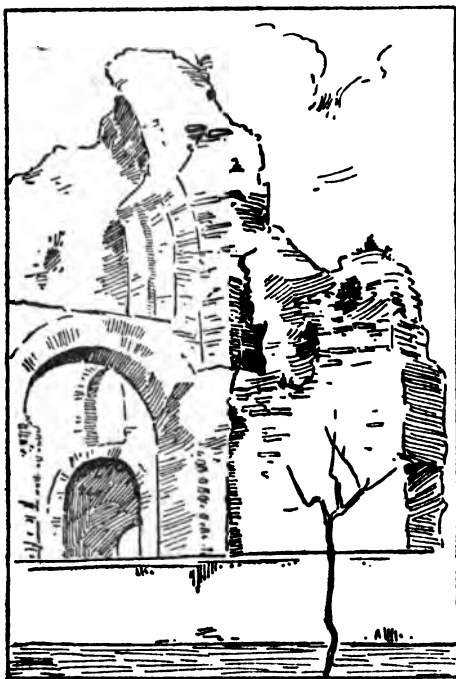
Used timidly at first, as a backing to retaining walls of hewn stone, or in the foundations of arches and temples, the singular properties and immense cohesive power of this cement were not fully realised till about the year 200 B.C. From this time onwards, however, a concrete in which it was the principal ingredient formed the unseen substance of almost every building erected in Rome. Within wooden casings, which served as moulds to determine their position and shape, walls were, so to say, cast in a concrete formed of this cement mixed with lumps of tufa, and faced, according to the taste of the time or the character of the structure, with stone or brick in the various traditional arrangements known as *opus incertum*, *reticulatum*, *testaceum*, or *mixtum*. The same practice was applied to arches over doors and windows, which were formed—one can hardly say constructed—in cement poured upon wooden centerings, which rested on the temporary support of scaffolding or the more permanent device of stone brackets allowed to project for this purpose from the walls, and retained when their first work was done as a convenient aid in future repairs. Their early successes in this kind of work only made the Roman builders more daring, and vaults and domes came to be built—over large areas too—in the same way, with the precaution, however, of using pumice stone or empty pots instead of tufa in the concrete for the sake of lightness. So far, indeed, did this practice go that examples may be seen where the landing of a stair or even the entire floor of a large upper room is formed in this way of one block of

solid concrete, supported only at the edges by stone brackets in the wall. Here, then, in this discovery of the powers of cement, Roman architecture had come to its kingdom, for henceforth there was no desired form it could not reproduce in the fluidity of the new material ; no enterprise of the art from which it need shrink, and, we may surely add, no common effect of time it need dread for the structures so raised.

The effects of the new method were enormous, and this very much because they were just such as appealed to the Roman character and aims, promising an architecture truly natural and deeply national : a style whose future was assured in its singular correspondence with the genius of the people that created it. For, first, observe that it set the builder as free as might be from the restraint imposed by static conditions. The true architecture of the arch, as Gothic builders found to their cost in later times, is constantly embarrassed by difficult problems of stability : on such a system—and the more the further it is developed—one is forced to build not as he would but as he may. These problems, as we have said, had already been met, and in great part solved, by Roman architects before they resorted to the use of cement in the way we have described ; and this new method carried all before it, very much, it may be believed, because of that foregoing experience, and as bringing freedom from what had already been felt as an irksome bondage. In the solid unity of cement, which petrified walls and arches, vaults and domes into one unyielding mass, all forces were

THE ARCHITECTURE OF ROME 9

resolved in the single downward thrust of mere weight, and the whole static problem, therefore,



reduced to the simple question of an adequate foundation covering a sufficient area. Once this simple condition was satisfied the builder had absolute freedom, within the means allowed him, to

satisfy to the utmost and without restraint his Roman sense of order, and even of splendour, in connection with the supply of those practical needs which the building was designed to meet.

We say advisedly "of splendour," thinking of another effect of the new building method not less welcome to the Roman taste than the former was to the Roman spirit. When the use of cement superseded other ways of building, these, discarded constructionally, were retained in the freedom which now treated them as merely, or mainly, decorative adjuncts. Thus we touch what is perhaps the grandest, as it is the most instant and magical, example of a change which architecture and art continually present. The savage finds it when on his first clay bowl he scratches with uncertain hand lines which recall his model—a wicker basket. The Etruscan and the Greek displayed it high on their entablatures, making stone follow the lines of previous wooden construction. And now, at Rome, a like change affects these forms again, subjecting them to a further metamorphosis. Hitherto pillar and architrave at least had been functional, they had supported weight and carried the pediment and the roof. Now, in Roman hands and on the new constructive method, they became mere accessories: a decorative framework set about the true building and supported by it. Even the arches, once constructive, broken, opposed and combined, on which the builders had but of late spent such care, lost their place and power in the true wall and kept it only in the surface casing as a mere occasional

decorative *motif*. Thus, the change of method brought a further freedom. It had met the practical sense of the Roman by relieving him of trouble over static problems, but it appealed also to his taste for the luxurious and the magnificent by promising him a free hand in a new world of decorative detail. It was not only that in construction he might now aim at any size or space he could plan or pay for—a Colosseum or a Golden House of Nero—but that he was free to play with pillar and lintel at will, now, at the bidding of the practical, reducing the fine empiric proportions held by the Greeks to a mathematic formula in which grace was largely lost to convenience; anon piling order upon order in a scheme where details, once used with restraint because still structural or not far from it, might be multiplied and enriched to any desired effect: a splendour that should hold strength in her arms as Delilah Samson.

To avoid any misunderstanding it may be as well to introduce at this point some necessary qualifications, such as may serve to widen somewhat our view of Roman building craft without in any degree weakening the main contention of our argument. The Romans knew—had always known, and never ceased to use—another solidity than that of concrete. This was the so-called *opus quadratum*, where walls were built throughout of solid stone, each block a double cube of two Roman feet by one. These were laid alternately as *headers* and *stretchers*, with or without mortar, and were often bound to each other by heavy iron clamps: an almost superfluous

means of securing greater solidity in the wall. Now it is plain that here, too, we have the builders aiming at the same effect which cement concrete enabled them to reach still more easily and effectually : the liberty in which they might feel free to neglect all problems save those of mass and weight.

Again, the Romans felt, as what age and nation has not, the conservative force in which religion tends to hold fast the material forms with which it has come to be associated. Temples, then, continued to rise, at Rome and elsewhere, on the old Græco-Etruscan lines, and the free peristyle with its functional pillar and architrave to adorn buildings of state, such as under Roman government were always more or less associated with religious rites. But even here innovations are not wanting, and outside the sacred limits proceed with growing freedom, till in arch and amphitheatre the new style is sharply distinguished from the old, and the latter loses almost entirely its constructive value to assume that of decoration.

It comes to this then, that with the single exception of the *opus quadratum*—used more and more sparingly as time went on—all Roman architecture of the great period was structurally nothing but the art of moulding in cement on a colossal scale. In the masses, as of living and lasting rock, that were thus formed, earlier constructive devices Rome had thought fit to adopt and retain were held fast, and now appeared as surface fossils awaiting the chisel of time and the breath of a new age : arches, domes and vaults, dead because asleep and thrustless ;

pillars and architraves, no longer bearing and carrying but themselves, borne and carried in the grasp that Rome in her own masterful way had at length laid upon them. It follows, therefore, that almost everything usually described as "Roman Architecture" is thus upon a just view of the matter seen to fall under the subordinate head of Decoration. Even so, however, it may well receive more detailed notice than we have yet given to it.

As regards their general form and outline, Roman buildings may be pretty evenly divided between the quadrangular, such as the temple, palace or basilica; and the circular, as the tomb, some temples, the theatre, the circus, and the rotundas of the baths. The former owe their imposing character to mass and proportion, and the latter have in addition a charm which depends on the form and beauty of the curves which they present. Coming to external decorative details, we find these, reduced indeed to their simplest form, in practically every visible wall-surface not belonging to the *opus quadratum*, and in a succession which affords a useful means of dating approximately the buildings in which they appear. First we have the *opus incertum*, where the face of the concrete is nearly filled with irregular pieces of tufa, three or four inches across, smooth in front and running back into the substance of the wall in a rough point: this belongs to the period of the second and first centuries B.C. Then follows—from about B.C. 50 to A.D. 150—the neater *opus reticulatum*,

differing from the *opus incertum* only in this, that the tufa lumps are now not only smoothed on the face but dressed to meet each other exactly in squares which are set diagonally in the wall and entirely conceal the concrete of which it is still substantially composed. During the same period we also find a third variety, the *opus testaceum*, which, however, continued much longer in use : as late, in fact, as the close of the Western Empire. Here brick was used as tufa had been before : triangular bricks, that is, with one angle running back into the concrete and set so close in front as to present the appearance of a solid brick wall, for which indeed this work is still commonly taken by observers unacquainted with the researches of Rondelet or the expositions of Middleton. It is here, in the *opus testaceum*, that the skin-deep decorative arches of which we have already spoken may often be seen : a reminiscence of constructive methods already superseded by the use of cement. Finally appears the *opus mixtum*, of which the earliest known example is seen in the Circus of Maxentius, built A.D. 310. The main body of this facing was of brick, as in the *opus testaceum*, but interrupted at regular intervals by horizontal courses of tufa in small oblong blocks pointing back into the concrete as before.

The Romans were not satisfied, however, with such simple forms of, so to say, structural decoration. To the walls that bore it they soon began to apply a coat of their famous *cæmentum*, made in subtle mixture of lime and pounded marble, applied

thickly and held in place by iron nails with which the walls were studded. This *cæmentum* took a high polish, and became not only a thing of beauty in itself but the material of new decorative methods. Examples are known in which, even as early as the times of the Republic, *cæmentum* was used to form all the finer and visible details of external mouldings : the cornice proper being a mere roughened projection of the wall on which the *cæmentum* was laid and fashioned.

By steps such as these we come to what may be truly considered as the boldest kind of surface decoration known to Roman architecture, where the Etruscan and Greek Orders, with their pillars, architraves and entablatures, were used in higher or lower relief, in selection of one or combination of two or more, for the purpose of giving light and shade and the lavish decorative effect that the Romans loved to buildings already structurally complete. The *Doric* of early Roman days is neither purely Etruscan nor Greek, but a mixture of both ; as appears in the modified curve of its *echinus*, which recalls without exactly following the Greek freedom, while Etruscan reminiscences are found even as late as the Augustan age in the shallow architrave, the *astragalus*, and the bases on which the columns are set. Examples of this Order may be studied at Rome in the Tabularium, and temple of Spes, and at Pompeii in the buildings of the Forum Triangulare. The *Ionic* suffered less change in Roman hands from the form and proportions used by the Greeks. There is still, however, the Italo

Etruscan tendency to diminish the depth of the architrave. Examples are to be found in the Temples of Pietas and Fortuna at Rome, and of Vesta and the Sibyl at Tivoli. The *Corinthian* was the favourite Roman Order, and in it particularly they innovated upon Greek practice, not only by their lavish use of a style which the Greeks had sparingly employed, but by changing certain details, adding, for instance, a member to their bases, brackets beneath the cornice, and in the end discarding the traditional acanthus of the capitals in favour of the olive. The whole history of these changes and developments may be conveniently and compendiously followed by observing how the architecture of the Temple of Minerva at Assisi differs from that of Mars Ultor at Rome, and this again from the decoration of the Baths of Diocletian.

This last example reminds us to note that the Orders were used also in the interior of Roman buildings, especially in later times and when these were of such size and importance as called for this enrichment : as was the case with the Basilica and the Bath. For internal effect the architects of Rome relied also upon the vast proportion of their halls, the imposing height and sweeping curves of their vaults and domes. These latter forms, which the Romans had made peculiarly their own, were often covered internally with the *opus lacunare*—an effective decoration easily obtained by nailing stepped squares of wood to the centering on which the vault or dome surface was moulded. The

retreating panels thus formed were often finished in the *'cæmentum marmoreum*, which indeed was freely used everywhere, within as well as without, and, strange to say, sometimes as a mere backing to



veritable and exquisite marble panelling—the choicest kind of internal decoration. Mural painting, executed on carefully prepared stucco grounds, either *a fresco*, *a secco* or in encaustic, gave the final note to form and colour at once, and raised the rich decorative scheme to its highest

point and effect. The Pompeian wall-paintings, and what is known of the original decoration in the Pantheon at Rome, may give us some faint idea of the beauty and splendour in which this architecture rose to its culmination.

CHAPTER II

BASILICAN ARCHITECTURE

AUTHORITIES : De Rossi, *Roma Sotterranea*, 1864 ; Hübsch, *Monuments de l'Architecture* ; Cattaneo, *L'Architettura in Italia dal secolo VI. al Mille circa* ; Despotti Mospignotti, *Il Duomo di San Giovanni*, 1902 ; Venturi, *Storia dell'Arte Italiana*, Vols. I. and II., 1902.

WE have already noticed how, in the Architecture of Imperial Rome, column and arch, vault and dome, were held fast as by some enchanter's spell. The history of the building craft in all succeeding ages, down to and including that of the Renaissance, lies simply in the setting free of these four fundamental elements of architecture, and in their successive combination, by twos or threes together, in the new unity of each succeeding style. Never again have they been so immobilised, or used without regard to their constructive life and function.

The dislocation which heralded this change is seen to commence under the decline of the Empire in the West, and the new life it held answers

remarkably to the contemporary power and progress of the Christian Church, before which the old order passed, and whose fresh demands on the builder's art gave immediate occasion to the development we are now to describe. Civil buildings of the period are practically non-existent for us, and our attention must be concentrated on the churches. But before entering on an account of their forms and details, let us try to seize the essential character of the new architecture.

Ere yet the old order gave way, in the decline, but before the fall, of the Western Empire, a taste had already set in for what may be called a simpler style of building : simpler, that is, not in its constructive principle, which, as we know, Imperial Rome had long reduced to a unity, but at least lighter and less expensive. It may be indeed that the idea of removal to Constantinople, already in the air, had made men at Rome less inclined to build in the old style, or for all time. At any rate, there can be no doubt of the fact, which includes this significant feature that, whereas in true Roman Architecture of the great period, arch and pillar were never structurally combined, that great step was now decisively taken, and at least as early as the building of the splendid half-way house to the East, which we know as Diocletian's Palace at Spalato (A.D. 284).

Here, then, observe that we have two out of the four prime elements of architecture showing signs of life, and preparing to enter into a new and functional combination. Rare and occasional in Roman



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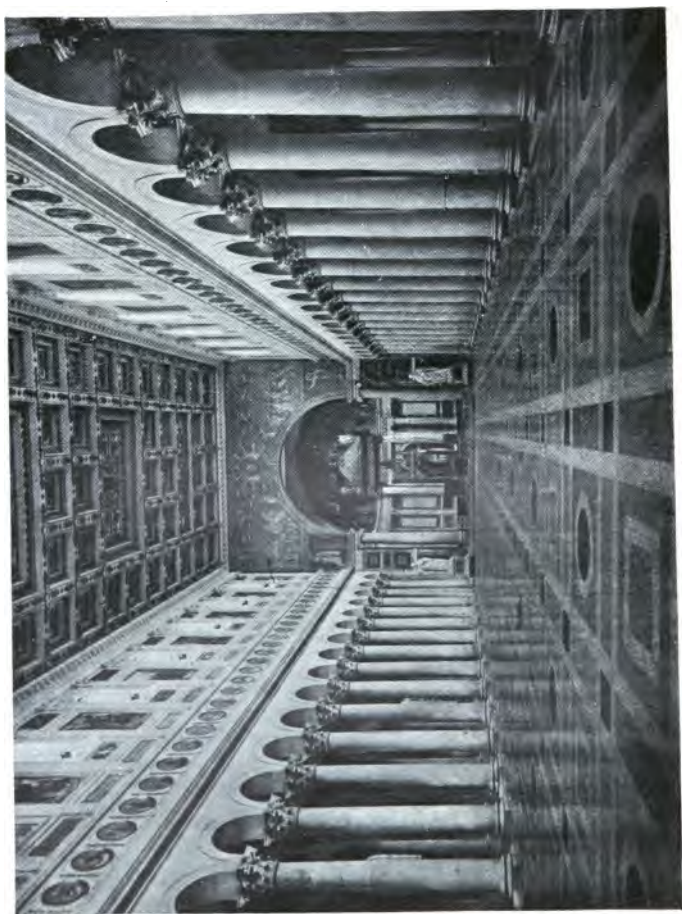


Photo Alinari

SAN PAOLO FUORI, ROME

building of the declining age, this practice was eagerly adopted by the Church builders. In their hands it became the determining element of a new style—the Basilican—which appeared on Italian soil in the fourth century of our era, held full possession of the building field for some two hundred years, and persisted, traditionally and in a measure, till the close of the first millennium, affording one of the principal streams of architectural tendency which formed the new Romanesque.

It is in the north and south walls bounding the central nave of these early churches that we see the new constructive principle at work. The columns here are commonly the spoil of classic buildings, and the arches that rest upon them are often wrought from stones that may claim the same origin ; so literally is it true that these ancient and constant elements are here set free from their secular bondage. The arches now turn and rest immediately on the capitals of the columns, for the builders have discarded those clumsy and useless fragments of classic trabeation with which, in earlier, and especially in pagan, examples, they were but lately wont to embarrass the new practice even where they adopted it. On these arches, thus sustained, bears the weight of the great clerestory wall with its high-set windows, and this, in turn, carries the rafters and the roof. The arrangement is simple, but thoroughly structural ; the arches are true arches with thrust and counter-thrust exchanged between them, and the lines of force answering to the weight of wall and roof above are thus made

to meet in the columns which bring them finally to rest in the solid resistance of the foundations.

Central and most to be observed by us in this constructive system—for a reason which succeeding pages will make plain—is that part of each superior wall where it tails down between arch and arch to meet the columns where they rest: the *wall-wedge*, as we may call it. The power of the system we have described is undoubtedly that of the arch. But the power of the arch itself is nothing but that of the wedge, as may be seen in the shape of its voussoirs. And, when we pass from the question of a single arch to the combination of such an arcade as Basilican architecture holds as its chief feature, it is just these greater wedges of the wall itself which claim our chief attention. In them lies the force of form which prevents the arches from rising at their haunches under the crowning pressure of the wall; it is they that stand midmost in the system which sends weight downwards so safely from roof to wall, from wall to arch, and column and foundation; they are, in fact, the greater wedges that key the whole. No wonder that with sure artistic sense the builders of these churches chose this part of the fabric as fit to receive the most important and precious decoration at their command, in the lovely stain of fresco or the rich sheen of mosaic: praising thus the discovery which had put into their hands a new architecture, and drawing by this device all eyes to what was indeed the main element in the static combination they had contrived.

Passing from structure to general forms, it is evident that the name of "Basilica," given to the first Roman churches of importance, was not without meaning, and may therefore with justice be applied, as we have used it, to distinguish this whole type of architecture. For whether or no the builders themselves, and consciously, took as their model the Pagan Court of Justice, the name it shares with the early churches represents a real correspondence. It has often been observed that the Roman Court of Justice was but an inversion of the Roman Temple; the wall enclosing the columns, instead of the columns the wall. Now this was a plan which offered distinct advantages to the first church builders. They set aside the difficult and expensive elements of the vault and dome almost entirely, using the latter only in the timid and incomplete form of the quarter-sphere above the apse; and, roofing their churches throughout with wood, made a convenient length of beam the transverse measure of the principal nave. Breadth they easily gained by adding parallel aisles, one or more, on each side, and height, in due proportion, they safely reached by raising the clerestory wall on the sound constructive principle already explained. Height indeed became increasingly necessary, as the practice—derived from Eastern sources, to be presently noticed—of placing a *matroneum*, or gallery, over the aisles gradually made way in the West. An *atrium*, or fore-court, borrowed perhaps from that of the Roman house, was laid out before the church porch, and in these great elements the main lines of

the new temple were complete. Nor was convenience wanting to such an arrangement. The apse, with an adjoining enclosure behind the *cancelli*, served for the Bishop and his clergy as the like position had done for the Prætor and his officials in the secular Basilica, while nave and aisles still gave ample room for the attendance of those who came to wait in Christian churches on the proclamation of the new law. This convenience was enough to secure the adoption and permanence of the Basilican plan as the original and normal form of the new buildings.

The first sites of these buildings, too, were not without significance. Before they gained liberty, by the Edict of Milan, to appear thus openly in public assembly, the Christians had worshipped for near three hundred years in the vaults of the Catacombs. Not infrequently the new churches were built over these ancient subterranean places of worship, doubly sacred as the resting-places of the martyrs, and adorned beside with not a little primitive and precious decoration. In this relation of the subterranean to the superior churches we find the origin of the *confessio* and crypt, which continued to be a feature of ecclesiastical buildings at least as late as the eleventh century, and which as such may be found in many Italian churches from the Alps to the coasts of Sicily.

A great religious event of the fourth century brought new influences to bear upon the course of this architectural history. In consequence of the visit paid by the Empress Helena to the sacred places

of Jerusalem, the Cross, as a material form, took new possession of men's minds, and soon brought its modification to the ground plan of the Basilica, first in a mere rearrangement of the internal columns in the neighbourhood of the *cancelli*, and then, more boldly, as a true transept projecting externally on each side of the church. Nay further, the Empress on her return to Italy claimed to have found, not the Cross only, but also the sacred Tomb of Christ, over which a sumptuous Church of the Holy Sepulchre was presently built. This gave at least an immense impulse in the West to the use of the second great constructive form, in which churches were built on a polygonal or circular plan recalling the classic tomb, as that of the Basilica proper had represented the Court of Justice. These two forms—of the Basilica proper and of the Rotunda—were used contemporaneously but not indifferently, the latter being appropriated, as was natural, to memorial chapels, or, by a sequence of ideas peculiarly Christian,* adopted as the typical plan of the Baptistry.

The churches built on this second plan derived their roof arrangements from those of the Basilica proper. If round, the roof was of wood laid on a radiating rafter system; if polygonal, each side was treated as if taken from the containing walls of the Basilican nave, the clerestory being, as it were, cut to a point above and bent forward till all the sides met in the centre, forming thus a polygonal dome. This was, in fact, the Western solution of the problem of the cupola, of which we shall

* Cf. Romans vi. 4; Colossians ii. 12.

presently have much more to say. Eminently exemplified in the Baptistery of Florence, which recent research has with authority assigned to the close of the fourth or opening of the fifth century,* it formed the model of Brunelleschi's famous dome. Nor can it be doubted that this device was well in the builders' view during all the centuries that lay between the Basilican age and that of the Renaissance, and profoundly influenced every Italian mode of covering architectural spaces with a solid roof. The Mausoleum of Theodoric alone, with its cupola cut from one prodigious block of Istrian stone, remains at Ravenna to speak to us of that enduring Roman solidity from which the various architectural elements were but slowly and successively disengaged and vitalised.

As we have thus inevitably anticipated somewhat the course of time, we may also note here one final form of ecclesiastical building, late but important, which rose on Italian soil ere yet the direct influence of Basilican Architecture had passed away—the campanile, or bell-tower of the church, which we have the more right to treat here because bells themselves were an Italian invention and only late and lingeringly made way in the East. Their ecclesiastical use would seem to date from the sixth century, and the building of towers to carry them from the eighth. The earliest plan of the campanile was probably quadrangular, as in several of the Ravenna towers, and in the absence of positive proof of the true origin of this form we may perhaps be allowed

* See Despotti Mospignotti, *op. cit.*

to suppose it derived from civil sources ; and that it represents fairly enough the house of the time, as that was commonly built in Italy after the barbarian inroads had set every one on his defence. The habit of living in towers continued, we know, as late as the beginning of the thirteenth century—some being then built in Florence for dwelling-houses ; and there can be no reason to suppose that in much earlier times the houses provided near churches for their clergy or guardians formed any exception to the common rule. The *solaio*, or open terrace at the top of these towers, would thus naturally become the belfry proper, while the lower storeys were the lodging of the *campanarius* and his family. Such a theory, it may be pointed out, would agree admirably with several well-known features of Italian *campanili* : such as their position near the door of the church, yet on a distinct foundation of their own ; the string-courses which divide them into several storeys, and, not least, the significant fact that some are even yet not only habitable, but actually occupied by the very class or people for whom they were, no doubt, originally built. And it is certainly of high interest if we may thus regard them as a true, though modified, survival of the early civil architecture of Italy.

Passing from forms to details, and, first, from the *campanili* to the façades with which at a later date they came to be associated, we find in this important part of the Basilican church a simplicity, not to say poverty, of ideas suggesting that it had not yet received the attention which its commanding position

might well have claimed. Above, a bare wall, broken only by a few rather insignificant windows; below, a porch belonging rather to the structure of the cloistered atrium than to that of the church itself: such are the chief features of the Basilican façade. But perhaps the examples which have come down to us do not fairly represent their style in this particular. The high bare wall, for instance, may have never received, or may have lost, some decoration, as of panelled marbles or mosaic, for which it was yet designed. And certainly we may hold that there is something interesting and significant in the details which still appear. The windows, lifted so high, are arched and pillared in the pride of the new constructive device; and the columns of the porch look back to their origin in the classic peristyle, and forward to that later day which was to see them carried, as in the Pisan Romanesque, over the whole church front in abundant, if not extravagant, decoration. The rest of the exterior begins already to show the shallow pilasters connected by a cornice of hanging arches, which later times and Lombard architects developed and used so freely.

If we are to take the example of the Florence Baptistery as a typical one, it would show that the outer walls of churches built on the second or polygonal plan were decorated, as Roman buildings had been, in an arrangement of coloured marbles. Widely typical or not, this case, like the structure to which it belongs, founded at least a local school of applied polychromy, and so influenced succeed-

ing time. The façades of the ancient Badia or Fiesole at San Domenico ; of the Pieve at Empoli ; of San Jacopo sopra Arno, San Salvatore and San Miniato at Florence—to mention only neighbouring examples—all derive character from this source, and give point to the suggestion we have admitted above regarding the intention and, possibly, the original appearance of the Basilican façades in general. The doors in these façades, too, were often highly decorated with sculpture of an artistic kind, commonly in wood, as may be seen at the church of Sta. Sabina on the Aventine hill.

Three doors gave access to the typical Basilican church, corresponding to the internal division or nave and aisles. Within, room was found in differing dispositions as time went on for the men and women ; for the catechumens and faithful, for lay people and members of monastic orders, all of whom occupied more or less distinct subdivisions of nave, aisles, and galleries, where the latter existed. Place was found beside for the singers and other minor clergy in the *bema*, or enclosure within the *cancelli*, while the Bishop and his priests sat in the tribune or apse, the former in the episcopal chair, and the latter in concentric rows of seats behind the altar. The internal decoration of these churches was both harmonious and splendid. It touched the whole structural system through the nave and aisle columns, commonly the spoil of classic buildings. These richly veined and coloured shafts struck an introductory note which found its rising scale in the marble wall casing, the bewildering *opus ver-*

miculatum of the tessellated pavement and the mosaics of the apse and clerestory, while the carving of the classic capitals was reinforced in a rare harmonic chord by that which carried its *motifs* to the like decoration of the pulpits, the altar with its ciborium, the paschal candelabrum, the cancelli, the episcopal chair, and many a detail beside. Thus the new life that Italian Architecture had gained in this, its second great period, rose freely into the regions of light and colour, not without the promise of further advances when the time for these should be ripe.



CHAPTER III

BYZANTINE ARCHITECTURE

AUTHORITIES : Couchand, *Choix d'Eglises Byzantines*, 1842 ; Texier and Pullan, *L'Architecture Byzantine*, 1864 ; De Vogüë, *L'Architecture civile et religieuse de la Syrie Centrale*, 1867 ; Bertaux, *Les Arts de l'Orient dans l'Italie*, 1895 ; Venturi, *Storia dell' Arte Italiana*.

ON the transference of the seat of Empire in the fourth century from Rome to the shores of the Bosphorus, the new capital, as was inevitable, became at once the centre of style and fashion. Thenceforward Byzantium, as it was called, exercised a potent influence on the Italian Province, profoundly modifying its life and art. This influence was, of course, not Greek merely, but deeply Oriental ; the Syrian Provinces of the Empire making themselves felt at Byzantium as they could never have done in Italy but for the change of capital.

Already in Syria, during the first centuries of our era, Roman Architecture had been modified by local conditions and by preceding Asian, and especially

Persian, methods of construction. These innovations were now in a position to assert themselves at Byzantium, where, as models, they became the potent and fertile source of a new building style ; just what the Imperial architects had been seeking, and felt suitable to the needs and situation of the Eastern capital.

The essence of the Byzantine style lay in the solution it brought to the problem of the cupola. This problem, as we have seen, had been evaded rather than solved by the builders of the basilicas and baptisteries. Their apses supported, it is true, vaults in the shape of a quarter-sphere, but supported them on a semicircular wall ; their baptisteries were polygonal rather than circular, and bore a corresponding polygonal vault, not a true dome ; their round churches were roofed with wood. Even the Mausoleum of Galla Placidia at Ravenna, which comes nearest to the true solution, shows a hemisphere minus its four opposite segments : a form very interesting as perhaps the earliest of all the Italian *volte-a-vela*, but no full dome, nor fair solution of the problem.

Stated in its simplest terms this problem may be called that of squaring the circle—relating, that is, the circular base of a hemisphere to the rectangles presented by an ordinary architectural plan. Or, more deeply and exactly, given a square, on the Basilican plan, whose angles are defined by four columns, one at each corner, and whose sides are formed by the four equal semicircular arches these support ; how to build a cupola of diameter equal to one side of the square, and, above all, how to place

it on the base formed by the four arches so that the whole shall form one satisfactory static combination.

The solution is believed to have come from a source as remote as the Persian Palace of Sarvistan (fourth century, B.C.), by way of the Khalibè of the Hauran in Syria, to Byzantium, where it was eagerly adopted and gave immediate origin to the Byzantine Architecture in general. It consisted, essentially, in a new application of an element whose importance we have already noticed in speaking of the Basilican Architecture. In the ordinary Basilica the *wall-wedge* (see above, p. 22), though important in function, was as yet simple in form. When the Basilican builders essayed a round church, the wall-wedges, necessarily, became curved in one direction to meet the exigencies of the circular plan. So far, however, no new step of any great import had been taken. But to conceive of the wall-wedge as capable of free distortion, or, that we may not anticipate, of being bent in two directions simultaneously, round and forward, was to hold in hand the secret of the ancient problem and the new combination. The square of the four arches was easily and simply brought to the circle of the dome base by this curved advance of their intermediate, or corner, wall-wedges, which in this new and complex form have received the unfortunate name of *pendentives*, as if they hung from the dome instead of supporting it as they actually do. The pendentive then, or doubly curved wall-wedge, was the secret of the new architecture in all its consequences, as the simpler form had been of Basilican building.

And how great these consequences were ! First, the circle was not sacrificed to the square as it had been by the builder of the Galla Placidia Chapel, or even to the polygon as in the Baptisteries. This means, of course, that the dome raised upon it was free to display the full height of its vault and the sweeping curve of its true form as a splendid crown to the building it covered. Nay further, in the new combination, made possible by the *pendentives* which joined it to the adjacent parts of the structure, the dome assumed a true and functional relation to its supports. Subtly built it often was with spirals of hollow pottery laid in mortar ; and always it seemed light enough to float in air, while in reality sending its greater or lesser weight steadily down the falling curves of arch and pendentive, till it met and, as it were, felt the safe resistance of the foundations through the upward thrust of the corner columns. The wall-wedge in its new form of the pendentive had thus not only set the dome free but made it one with the column and the arch. No longer dead, as it had been at Rome, this, the third great element of architecture, found at last its true place and function as the crowning member of an even mightier whole.

In the new order of things the square was as little sacrificed to the circle as the circle to the square. On this opposite view, and taking the circle of the cupola base as the true centre of a Byzantine building, then the doubly curved wall-wedges we call the pendentives prove themselves the potent means whereby that circle generates the square on which

it rests, and thus stands in functional relation still to the whole quadrangular plan that is developed from it. The Greek Cross—the cross inscribed in a square and itself subdivided into five equal quadrangles—becomes accordingly the normal plan or the Byzantine church as the Latin Cross had been of the Basilica. Raise a cube on each of the five squares, crown each cube with a cupola, and you gain the generalised elevation of these buildings.

So strong and vital was the central static combination we have described that it attracted and united to itself the half-dome of the Basilican apse, giving that feature a new meaning and function. In Santa Sophia, the central square with its immense cupola, is flanked to east and west by such half-domes, which not only add greatly to the general effect—as of magic that seems “to hang that dome in air”—but are true supports, as is seen in the fact that mighty massive pieces of masonry take their place on north and south to balance the thrust of the great dome. The apse, thus used, is not so much copied from that of the Basilicas as vitalised, and the arch section of its abutting vault suggests at once its greatest derivative, the buttress arch of the Gothic builders.

Fruitful, then, in its structural combinations, the new style lent itself admirably also to decorative effect. Byzantine decoration is essentially Basilican or Roman, nay, in certain details these builders are more Roman than the Romans of the Basilicas: the double capital for instance, which held a reminiscence of the broken classic entablature long after its use,

had been discarded at Rome. The carving of these capitals, however, is in lower relief than the West had hitherto thought of, and this change betrays Oriental influence. Not shade, it would seem, but light was the main effect aimed at : light gained, not as in the later Gothic style of France, by making glass in great spaces take the place of wall surface, but by multiplying the number of small window-openings in the upper part of the building, and especially round the bases of the cupolas. For colour, then, the Byzantines depended not on transmitted but on reflected light : light that, falling from above, was thrown back in great floods of colour from the vast open spaces of the inlaid pavement, the numberless ranks and orders of rare marbles in the columns, and, above all, in a sheen like that of gold, of silver, and of jewels, where it met and lit up the triumphs of mosaic on wall and dome. These effects of light and colour found their focus in the sanctuary, where screen and ciborium seemed on fire with concentrated radiance, as if to represent the departed Shekinah of the Jewish temple, the insufferable splendour on which none might look and live. Indeed, if we must select one element from this decorative scheme as above all characteristic of Byzantine art, it must surely be mosaic. For this these great wall spaces were calculated, and from them it passed upwards, to clothe as with an easy yet clinging garment of light the subtlest curves of cupola or pendentive. The art of mosaic working, indeed, received one of its chief impulses with the advent of Byzantine Architecture.

Considering the immense and continued influence of these essentially Eastern building forms upon Italian Architecture, we have not spent too much time upon the analysis of Byzantine construction and decoration. Of that influence, however, and its effects we must now speak ; and the first thing to be said is that these were not regular nor consecutive, but proceeded in distinct movements, reaching Italy from different directions, and spreading in her building schools from various and often widely separated centres.

The first of these was, naturally, the city of Ravenna, and the earliest appearance of the Italo-Byzantine style is to be referred to the period commencing A.D. 539, when Ravenna became the seat of the Exarchate, the capital of the local governor who represented in the Italian province the Emperors of Constantinople. Hence the obvious and inevitable result. Churches were built or decorated here by Greek craftsmen, and local architects learned the new methods which soon spread widely and left their mark even at Rome, the original seat of the Basilican style.

Not that the native school of architecture gave way at once or altogether before this Byzantine invasion. From the first Italian methods held their own, and even proved able to impose their characteristic forms on buildings erected in the Eastern manner. San Vitale of Ravenna, consecrated in 547, is a notable instance of this compromise. As a whole it appears the most Byzantine church of its age in Italy. Yet its plan is not that of the Greek

Cross, but a polygon like that of the Basilican Baptisteries, itself derived from earlier and purer Italian sources, such as may be studied in the Temple of Minerva Medica at Rome, or in San Lorenzo at Milan. Passing from plan to elevation, we find that the cupola of San Vitale, built of hollow materials, is brought to the angles of the polygon by members which are niches rather than true pendentives. Yet the columns have the double capital, their carving is Byzantine, the choir blazes with mosaics, and the effect of the whole is unmistakable. It is as if this church had been planned by an Italian, and the details ordered and the building raised by craftsmen from the East. Other examples of the same compromise, varying however in its result according to the circumstances of each case, may be seen in the Duomo of Paranzo in Istria, famous for its mosaics; that of Grado, where pavement and windows are alike remarkable; the church of S. Maria of Grado, with an internal apse inscribed in a quadrangle—a specially Byzantine feature; and at Rome in the churches of S. Stefano Rotondo, S. Agnese, San Lorenzo fuori le mura, S. Giorgio al Velabro, &c., where double capitals, triforium galleries (*matronea*), and other details show the superposition of the new style in some of its notable features upon the native architecture of Italy.

The miserable condition of the country during the seventh and greater part of the eighth centuries—a prey as it was to war, famine, and pestilence—not only suspended building operations almost

entirely, save those of a military kind, but discouraged the Greek craftsmen in whose continued immigration some hope for the Arts might have lain. The close of this disastrous period and the



opening of the ninth century saw quieter and more prosperous times, when architecture once more revived in Italy under a renewal of its former stimulus from the East. To this second wave of Byzantine influence, rudely driven westward by the violence of the iconoclasts, may be ascribed two important consequences—one constructive, in the introduction of the triple apse in the churches, as at S. Maria in Cosmedin of Rome, rebuilt on this plan by Adrian I. (772–95) ; and the other decorative, in a distinct improvement henceforward noticeable in the art of

sculpture. This is also the time when the Basilican *opus vermiculatum* gives way in church pavements to the richer *opus sectile*, as seen in the Capella of San Leone in San Prassede at Rome, and which was no doubt derived from some new source of Byzantine art. It is curious to notice that this revival does not seem to have affected work in mosaic, which, at least in Rome (S. Marco and SS. Nereo ed Achilleo), showed a sad contrast to its flourishing condition in Ravenna during the fifth and sixth centuries.

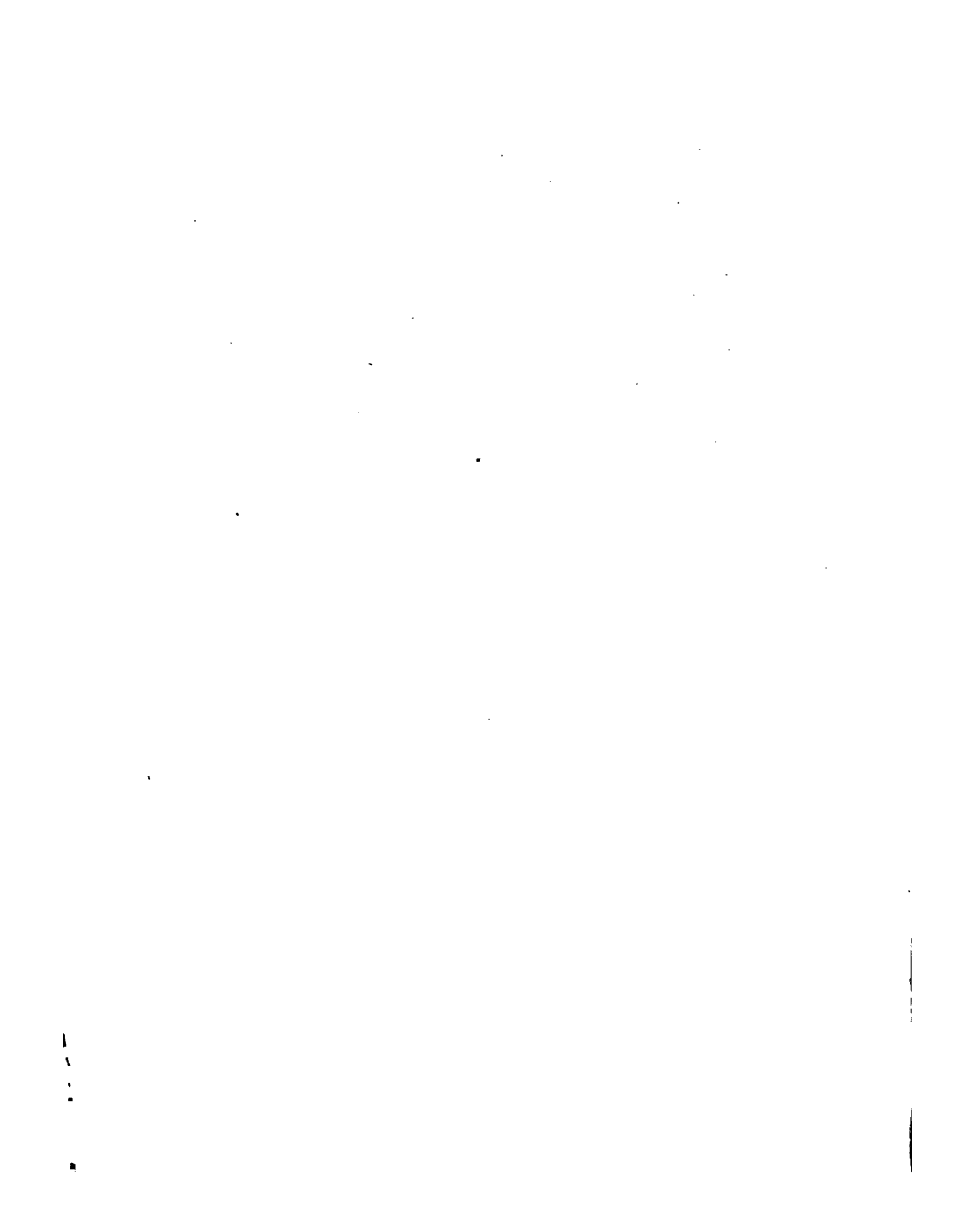
The future, however, held further advance in store, when the eleventh, twelfth, and, in part, the thirteenth centuries, brought Byzantine influence with all its splendid consequences to a climax in Italy. As San Vitale is the chief monument of the first age in this great movement, so St. Mark's at Venice stands for the time of its full development. When we compare the later building with the earlier this appears at once. San Vitale is essentially Basilican, like any early Baptistery, and appears Byzantine only by craft and for fashion's sake; while St. Mark's shows the cupola everywhere, covering almost all its spaces with this form, and developing thence through its pendentives the balanced squares of its symmetrical Greek Cross. Never did the East more fully show its power on Italian soil.

And not less in decoration than in construction was this power felt. Mosaic, the crowning glory of Byzantine interior, now recovered from its long decay—thanks very much, it is said, to the sym-



Photo Alinari

ST. MARKS, VENICE



pathy, taste, and opportunity of that Desiderio, Abbot of Montecassino, who sat as Pope from 1086 to 1088, under the title of Victor III., and gave the first impulse to this revival on Italian soil. Hence the splendid decorations in this kind of the Palatine Chapel and the Zisa at Palermo, of the Cathedrals of Cefalu, Monreale, Messina, and Salerno, of the Abbey of Grottaferrata, and, not least, of St. Mark's itself, which brings us back fairly to the starting-point of the whole movement in the chief city of the Adriatic.

Venice, in fact, from the lands it held in the Levant and the correspondence it kept with the East, occupied now something of the position of Ravenna in the Byzantine movement of five hundred years before; it was the centre of Greek influence, which passed thence to the towns of the Lagoons and the valley of the Po. But Venice was not the sole centre of the movement, nor was the primary Byzantine influence it diffused the only way in which Greek traditions and the practice of Constantinople came to affect Italian Architecture. What may be called the secondary Byzantine impulse was, in fact, so important that we must at least touch upon it before we close this chapter.

This secondary influence came through the schools of Moorish Architecture, the daughter of the Byzantine by legitimate descent; and easily recognised as such, even by those who do not know that the first mosque builders came from Constantinople. In this secondary Byzantine style, as we may call it, the main constructive group of column, arch, and

dome is fairly preserved and frequently central. Only on the plan, here set free from Christian tradition and use, the column tends to multiply itself till, as at Cordova, it comes to fill the whole rectangle without distinction or subordination among the many naves—as in a quincunx—which it defines. The pendentive similarly multiplies itself in groups of arched or niched forms, defying geometric analysis or description, which hang in clusters from the edges of the roof like the work of bees, or in corners like the stalactites of some natural cave. There is a tendency to prefer the pointed form or that of the horseshoe for the arches, especially the latter, which ends by becoming a chief character of the style. Similar variations from type are seen where the Moors substitute elaborate stucco work for carved marble, and use iridescent pottery in bowls or tiles, instead of the traditional splendours of true mosaic. Sicily in the ninth and tenth centuries was ruled by this race, and the Norman and Hohenstaufen Emperors who succeeded to that power were still the liberal patrons of their artists and architects. Hence in the island and on the mainland alike, and especially within the bounds of what came to be called the kingdom of the two Sicilies, both direct and secondary influences from Byzantium combined with those of Rome to form what is known, perhaps too narrowly, as the Arabo-Sicilian school.

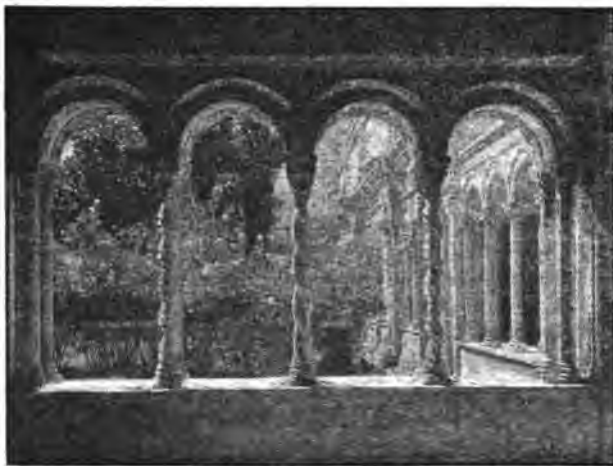
The same tendency acted upon central and upper Italy, as well through Venice as from the rival States and harbours of Genoa and Pisa in the West, which were hardly less influential or less closely in touch

with the South and East. Hence the appearance or the dome on pendentives as the central feature of many a cruciform plan ; the use of the pointed or horseshoe arches as decorative forms, the appearance of elaborate stucco work in S. Ambrogio, Milan, and at Cividale, or of majolica plates in campanile or eaves arcade, as at S. Appollinare Nuovo, Ravenna (A.D. 850).

A final result of Byzantine influence was seen when, during the twelfth and thirteenth centuries, these Eastern decorative methods formed and inspired the native school of the Cosmati, who worked widely and with success in geometrical mosaic which they applied to the decoration of marble slabs, columns and arches in many a church pavement, cloister, façade, pulpit and paschal candlestick.* This inlaid work, of which many examples may be seen at Rome and throughout Latium, shows a singular correspondence with that of Monreale and the Cappella Palatina at Palermo. The "*ab oriente lux*" rises to our lips as we see marble thus patiently illuminated with gold and colours, like the page of some elaborate missal ; but it is the declining day that shines here, the sunset of Byzantine influence which sheds these last bright rays on the course of Italian architectural history. Yet with what hope of a new dawn ! For the afterglow reddens on the marbles of Orvieto,

* Succession of the Cosmati: Lorenzo, 1162 ; Giacomo, 1205-10 ; Cosma, 1210-35 ; Luca, 1231-35 ; Giacomo, 1231-35 ; Cosma, 1276-77 ; Giacomo, 1293 ; Adeodato, 1294 ; Giovanni, 1296-1303.

where "Jacopo di Cosma Romano" is still at work on the cathedral in 1293. Thus to this wonderful family and school it was given to join distant lands and ages, bringing the riches of ancient Rome and far Byzantium to the service of building craft such as neither city knew, but which the progress of this study now engages us to describe.



PART II

THE SYNTAX OF ITALIAN ARCHITECTURE, IN ITS THREE LATER COMBINATIONS

CHAPTER IV

THE LOMBARD ROMANESQUE

AUTHORITIES : Cordero di San Quintino, *Dell' Italiana Architettura durante la Dominazione Longobarda*, 1829 ; Corroyer, *L'Architecture Romane* ; Dartein, *Etude sur l'Architecture lombarde* ; Cattaneo, *L'Architettura in Italia dal secolo VI. al Mille circa* ; Venturi, *Storia dell' Arte Italiana* ; Rivoira, *Le Origini dell' Architettura Lombarda*, 1901.

WE now approach the period when architecture won its chief triumphs in Italy through the creation and development of the Romanesque, both Lombard and Gothic. The former of these two styles had its dawn in the eighth and ninth centuries, its full day in the early ages of the second millennium. This is a period which our plan of study has already obliged us to examine from another point of view—that of the Byzantine Architecture ; and it is well, for we now approach it anew, prepared to find, what was indeed the case, that the Romanesque, with all its triumphs, owed much to the stimulus of foreign practice upon the secular craft of Italy,

arose definitely out of their combination, and was therefore essentially but another instance of the ever fruitful influence of the Greek upon the Latin genius.

A new words of history may not be out of place ere we proceed to examine the character and technical details of the new style. Milan, the chief city of Lombardy, had architectural importance from the close of the third century A.D., when Maximian (286-305) made it the seat of his power, and called builders from Rome to beautify the northern capital. To this period belongs the fine rotunda of San Lorenzo, which, whether built for a bath or a Christian church, shows sufficiently the quality of the structures then erected and the capacity of the architects who designed them. It has been thought, too, that when under Honorius (A.D. 404) the seat of power passed to Ravenna, Milan as well as Rome was drawn upon, and that the native Italian element in the Ravenna school owed much to the arrival there of capable builders from the city of the North. The coming of the Lombards in the late sixth century, and their choice of Milan as a capital, set the stream flowing again, it would seem, in the opposite direction. This, it will be remembered, was, in fact, just the time when a great decline took place in the art of building at Ravenna. Her best craftsmen must have moved northwards, obedient to the new call, and carried with them, we may be sure, the ripened fruit of many a lesson learned by the Adriatic under Eastern teachers.

The first Lombard rulers, Autari, Teodolinda and Agilulfo (583-615), were not the barbarians we are apt to think them. They encouraged the art of building, which began to improve again at Milan as it declined at Ravenna. Their successors, Rotari (636-52) and Luitprand (712-44), were the authors of edicts in favour of the *commacini*, or workmen employed in designing and erecting buildings. These associations were probably only temporary, dissolving on the completion of one piece of work to recompose themselves from diverse elements when another was called for, so that we are not to think as yet of anything in the nature of permanent Masonic Guilds. None the less, however, this legislation laid the foundation for future architectural progress, while testifying to the enlightened favour with which this art was regarded by the Lombard kings. Important buildings of the time may still be seen at San Salvatore, Brescia; S. Maria delle Cacce, and the crypt of S. Eusebio, Pavia; the Pieve of Arliano, Lucca; S. Pietro, Toscanella; S. Giorgio in Valpolicella; S. Teuteria, Verona, and S. Maria in Valle, Cividale.

A great advance took place in the time of Charlemagne (774 A.D.). Under the Lombards the *commacini* followed the old constructive lines, and only in sculpture showed some improvement. With the opening of the ninth century the new movement becomes marked, just at the time when we noticed a corresponding revival under Byzantine influence at Ravenna. For the great Frankish Emperor the schools of Milan and Ravenna now

combined their forces. The old problems were studied afresh, and the art of construction rapidly improved. The *commacini* went far and near from their northern centre at Milan, where they worked well on the fabric of the earlier S. Ambrogio for the Bishops Angilbert and Auspert (824-81). Viterbo also employed them, and we hear of a certain Natale di Lombardia, *magister casarius*, at Lucca (805).^{*} In short this century was full of varied activity, and was the period when the distinctive character of the Lombard Architecture, of which we are presently to speak in detail, made its decisive appearance.

The full development of the new style belongs to the eleventh century. It thus opens under the remarkable religious and social conditions, so favourable to the art of building, which marked the beginning of the second millennium, and coincides also with that latest and highest wave of Byzantine influence which came from Venice. St. Mark's remains unique among Italian buildings, precisely because the school it represents did not suppress native building craft, but stimulated it to generous and successful rivalry. The *commacini* now cast about for new ideas among the schools of Rome, Ravenna and Venice; and the result was seen in the supreme triumphs of the Lombard Romanesque at S. Ambrogio of Milan, now rebuilt, or San

^{*} The *commacini* of early Lombard times had their successors in the *maestri* of Antelamo and Campione, whose work, dating from the twelfth to the fourteenth century, may be seen in the Cathedrals of Parma, Modena, and Milan.

Michele of Pavia, where we find that easy community of ideas and fertile fusion of methods which are characteristic of the style.

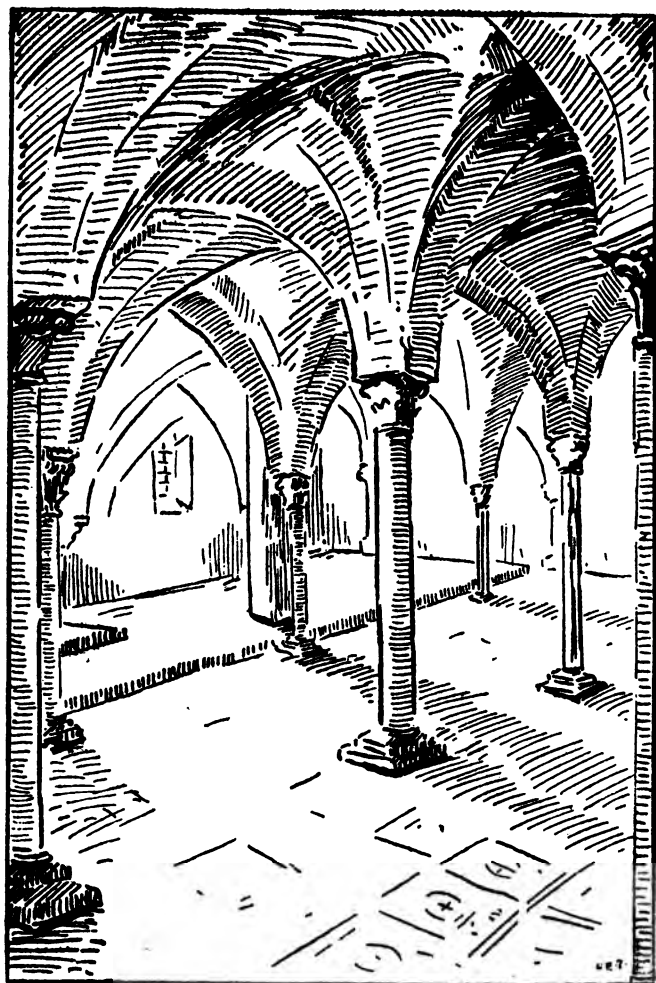
But it is time that from history thus briefly traced we should turn to examine the Lombard Romanesque itself, with the view of seeing what distinguished it from earlier styles, and to what constructive principle it owed its progress and success. Let us repeat that this Romanesque, as its history again and again shows, was the result of a fusion to which Rome and Byzantium alike contributed. The influence of the Roman school appears, first, in the persistence of the two original ground-plans of the Basilica and Baptistery, which are still normal in the Romanesque. Byzantium may, and often does, lend a dome to the crossing, but these cupolas are generally built in the Roman polygonal form. Many of the smaller churches, especially in the country, are still roofed in wood over nave arcades supported by simple columns after the ancient Basilican mode. There has been an attempt indeed, not very successful, to associate this particular form with districts and churches where the Roman rites prevailed in distinction from the Ambrosian, but it is better to see artistic meaning only in such details, and the persistence of the Roman architectural methods. The Byzantine, on the other hand, may be traced in the common central element of the cupola, raised over a rectangle on its pendentives or niches, and in the distribution of the whole ground plan, on a scheme of seven however, from this *modulus*, which was counted twice. The same Eastern influence

appears in the prevalent fashion of the triple apse, the nave galleries, the occasional mosaics and frequent flat interlaced decoration. If the Lombards themselves brought anything of the North to the complex architecture they favoured this must be found in the abundant and monstrous animal forms, which hold such a place in the sculpture of these buildings. But the Cathedral of Athens and the Baptistry of Cividale (A.D. 737) lead us rather to trace them also to a Byzantine original.

Plainly, then, the Romanesque arose from ground that had been happily prepared by an antecedent fusion of building styles. The question of its own distinct character remains, however, as yet unanswered. We must now examine the heart of the new style, the most important instance of fusion such as we have indicated, the germinal root from which the Romanesque took its triumphant development.

One, and one only, of the four great architectural elements had as yet remained where Rome left it, untouched by all the progress of the Basilican or Byzantine schools. The new day of Lombard architecture broke that ancient spell, and summoned the vault to take its place with the column, arch, and dome, nay, to become the chief glory of the Romanesque. The catacomb had handed on its form to the crypt, and there, like a soul bound under the altar, the vault had awaited the hour of resurrection and release. That hour had now struck in the birth of the new building style.

The vault had been dead in classic days because, whatever its form, cradle or groined, it was, like



almost everything else, cast or moulded in rigid, unyielding cement. The new methods were different. As applied to the vault, they aimed first at reproducing the classic forms on something like the old scale, but by sheer building-craft that dealt with the ordinary materials of brick or stone. The extreme difficulty of such a task was probably the reason why, for a thousand years, it had never been attempted, save on the very limited scale proper to a *confessio* or crypt.

Gradually, then, the crypts grow in size as the builders gain skill and courage, and their characteristic architecture invades the church itself. The progress of the Romanesque vaulting system may be studied in three stages. First—as nearest the original crypt—a free ambulatory was led about the chancel and roofed in this way, as at San Stefano, Verona, and S. Antimo, near Siena, which show that these builders had indeed borrowed ideas from Ravenna, where the circular aisle of San Vitale was probably their model, if they did not rather find it in the nearer and more central San Lorenzo at Milan. Next, the vaulting displaces the traditional wooden roof in the transepts or nave aisles—at S. Antimo this latter stage has already been reached—and at last, where the style shows its full strength, the central nave itself comes to be covered in the same way. Thus the Romanesque builders fairly grapsed, and finally resolved, the problem brought them by time and the progress of their art. Let us now see what that problem was.

To cover a quadrangular space with a groined vault of the Roman form involves this difficulty—



ST. ANTIMO, PROVINCE OF SIENA

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that the diagonal arches must be elliptical, and therefore weak with a weakness which is of no consequence when we use cement, but spells ruin if risked under the conditions of common building. The Lombard architects solved the difficulty by striking the bounding arches of their vaults from a centre higher than the level of the column capitals. From the crowns of these arches a slight doming given to the vault easily brought it as high as the meeting point of the diagonals, even when these latter arches were kept to the semicircle : a strong and sufficient form.

Stated in these terms the problem of the vault and its solution recalls at once that of the dome as resolved by the Byzantine builders. Nor is this likeness merely superficial. Both commence from the same original *datum*—the bounding arches of a rectangle resting on four corner columns—and each attempts in its own way to roof in the resultant space, Byzantine architecture using the dome and Romanesque the groined vault. Nay, most interesting of all, even the latter form of the problem in its resolution shows how much Italy was still in debt to Constantinople. When we speak of the Romanesque vault it is too little to call it a compromise, in which the spirit of Byzantium acts upon Roman forms. For the fact is that, except in a very general sense, the new form of the vault was not Roman, nor even derived from Rome. The Roman groined vault was generated by the interpenetration of two equal semi-cylinders. But, as the result of the slight stiling, or rather horseshoeing given by the Lombard architects to their transverse arches, and the doming of the vaults

over them to bring all to the crown of the semi-circular diagonals, all quality, or even idea, of interpenetration is lost, and the eight resultant faces of the vault are of necessity treated in the new style as flexible wall-surfaces—to be kept back here or brought forward there, as the conditions of the case may require. Thus, then, from their bearing on the columns, and bounded by the four containing arches on which also they rest, sensitive, too, to every least change of form these arches may be called to suffer, the segments of the vault reach out to cover the whole intermediate space with their new roof form. And such wall-surfaces then, instinct with this new life, what are they but that which their place between the bounding arches of the rectangle, and their reaching and covering functions, declare them to be—the *wall-wedge* in a new and almost final form, with, it may be, a reminiscence of the Byzantine dome in their upward curve, but asking no longer the aid of any cupola to help them in their own task: pendentives indeed, but now all sufficient to themselves as roofing elements, plastic in the builder's hand, with a grasp, too, that weds arch to column in a new unity, and with a reach that allows them to meet freely and firmly over aisle and nave alike. Thus the vault begins to live again, and does so through admitting a fresh function of that form which had already done so much in the case of the column and arch and dome. Here lies the true secret and worth of Romanesque Architecture.

And hence, then, follow immediately and naturally all the subordinate characteristics well known as

distinctive of the Lombard style. The angular advance of the wall-wedges, due to the desire to diminish as much as possible, for statical reasons, the diagonal diameter of the space to be vaulted, gave a new importance to the corners of the capitals from which these wall-wedges sprung, and which they now fully occupied. Gradually a distinct member was developed here, supported at first by a kind of bracket tailing off into the pilaster or wall, and later by a separate colonette at the angle. Thus by degrees the demand of the compound wall-wedge was met by the supply of a compound column or pillar, consisting of members answering to the bounding arches and modified pendentives which composed the vault. Another important development next followed. If distinct arches demanded discrete members for their support, the like necessity was soon felt in an opposite sense. The corner colonettes, introduced for the sake of the vaulting groins, might be really part of the new system, but were not visibly so till moulded diagonal ribs sprang from their capitals and, crossing at the centre of the vault, bound the whole together in an evident unity. In these moulded diagonal arches the new static combination found its clearest outward expression. Basilican and Byzantine Architecture had depended for their effects upon the *multiplication* of arches and columns in order and series, sometimes by their superposition. Romanesque distinguishes itself from the earlier styles by the *combinations* it seeks and effects with the same elements: the pillar becoming a cluster of diverse members, and the arches not only

bounding the vaults but interlacing themselves beneath their span.

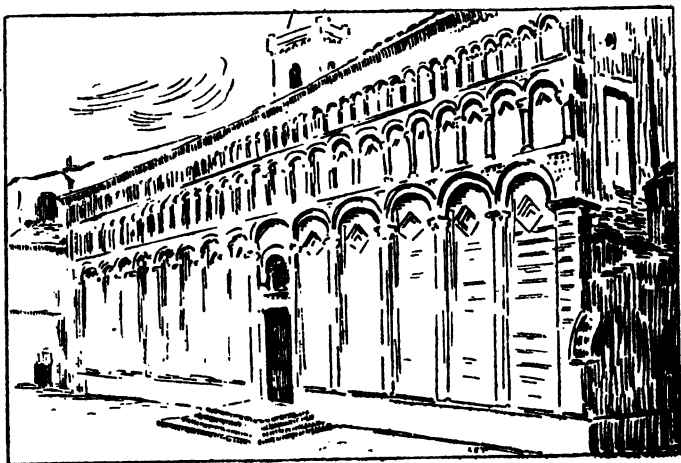
The same principle may be found at work in Lombard decoration, which, as we should expect, derives its characteristic forms from those naturally evolved in the course of construction. The shapes of the horseshoe and of the sickle, so often given to decorative arches, are a plain example of this, coming as they do from the stilting and doming expedients used in connection with the new vaults. In the same way the diagonal arches of the vaulting are represented in decoration by the interlaced arcades of the typical Lombard façade, as in many churches at Pavia, and the compound columns of these interiors appear externally and decoratively in the deep mouldings about the doors and windows.

This last detail is so deeply characteristic of mediæval as distinguished from classical architecture that we may be allowed to spend a moment in tracing it more exactly to its source. The Romanesque practice of vaulting made thicker walls and deeper buttresses a necessity, to resist the new thrusts from within. This tended to a considerable reduction of the space available for doors and windows, and introduced a new problem: that of providing sufficient light under the new vaults from these narrowed openings. Now, at Byzantium, they had lit their churches from above by circles of comparatively small windows at the base of the cupolas, and when we remember that this place coincides with the position of the internal ornamented squares of the classic *lacunar* work (see above, p. 16), we begin to see what must have been

the origin of splays as applied to window and thence to door openings. Pierce the centres in the bottom row of such lacunars and you have a circle of small window openings, not merely splayed so as to shed the greatest amount of light, but stepped on the splays as if surrounded with successive square mouldings. These then were at first simply applied as they stood to window openings generally—as at S. Piero in Grado, Pisa—and then rounded at the angles and carried over jambs and arch in sympathy with the Romanesque form of the compound column—as at San Michele, Pavia. It is the principle of combination and fusion applied in decoration as it had already been in construction.

Space fails us to speak of the origin and development of the cornice arcade, so constant and important a part of Romanesque decoration. If we mention it now it must only be to point out in a word the significant progress in which, from a simple eaves-line of pensile arches—as at S. Giovanni, Ravenna—we reach the apse arcades of Lombardy, where the colonette already begins to show itself, and, at last, the triumph and riot of such decoration at Pisa, Pistoia, and Arezzo, where whole façades are covered with these columns and arches, gallery over gallery, arcade above arcade. Such extreme examples can only be defended and, with difficulty, brought under the true character of the style on this ground, that, in the region of ornament to which they belong, static and constructive conditions are relaxed if not suspended altogether, as, without offence, morality might be in a fairy tale, and the forces practically non-existent

which bound instead of scattering, and formed of many such members the splendid compound shaft of the Romanesque column. None the less is it true that when decoration begins to use such freedom to excess, it is a danger-signal warning off the path which leads to decadence and decay. Not so did the Lombard Architecture win its place among the world's great styles—not by multiplying but by combining; and its noblest ornament must be sought therefore in the laced arcades of Pavia, or the deep window mouldings of Milan, rather than the endless division and tiresome repetition of these Tuscan façades.



CHAPTER V

THE GOTHIC ROMANESQUE

AUTHORITIES : Renouvier, *Notes sur les Monuments Gothiques de quelques Villes d'Italie* ; Enlaert, *Origines Françaises de l'Architecture Gothique en Italie*, 1894 ; Dion, *Introduction de l'Architecture Gothique en Italie*, 1891 ; Despotti Mospignotti, *Del Duomo di Milano*, 1889 ; Supino, *Studi intorno alle Opere d'Arte nella Primaziale Pisana*, in *Arch. Stor. dell'Arte*, 1895 ; Canestrelli, *L'Abbazia di San Galgano*, 1896, &c.

THE title of this chapter may serve to define from the outset the peculiar nature of that Gothic Architecture with which we here deal : a style which never entirely freed itself from the general Romanesque tradition, nor became, as it did in France especially, completely distinct from the other in structure and ornament, development and decay. In Italy the acute arch was recognised indeed, and adopted as an expedient form, yet rarely with the whole-hearted enthusiasm which might have led those who used it to found and develop a complete architectural system from this single constructive detail.

Yet the pointed arch had an ancient history or use, if not of development, on Italian soil. The cupola of the Tomb of the Plautii, between Rome and Tivoli, which dates from the early Empire, shows this arch in the section of its dome, and the same may be said of a still more remarkable early cupola—that which covers the Baptistery of Florence. The Benedictine Order is supposed to have had much to do with the first revival of the pointed arch in the Middle Ages, and a recent authority * tells us that the earliest known example of this fresh use is to be found in their convent of Subiaco, dating from the eighth century.

But beside the direct stream of classic tradition there was another more distant source whence this form reached the Romanesque builders and engaged their attention. The pointed arch was ancient in the East; it appears in the ruins of Khorsabad. Thence it travelled easily to Constantinople, and became known to the Byzantines, who handed it on to their pupils of the Arabian school, as may be seen in the Mosque of Ibn-Tulun at Cairo (A.D. 876) and other early examples. Thus, chiefly under the secondary Byzantine influence, which the Saracen art exercised upon Italy through Sicily and the maritime cities of Pisa and Genoa, the pointed arch became known once more to the Italians. An early instance of its use in decoration appears on the façade of S. Paolo a ripa d'Arno at Pisa, a church founded in the year 805.

* Archinti (Chirtani) *Degli Stili nell' Architettura*, vol. ii. p. 478.

But the decorative use of this form is comparatively unimportant ; it is when it comes to be employed in construction, and to shape, in sympathy with its own peculiar functions, the other members of architecture, that we find the true power of the pointed arch to create a Gothic style. That the earlier Romanesque was what gave occasion for this innovation is evident. We have seen how the Lombard builders met and resolved the problem of the vault by using containing arches struck from a higher centre. The pointed arch, then, would naturally appeal to them as a form not merely beautiful in itself but strong, and, above all, available constructively to the same end, as a variant or alternative to the plain stiling or slight horseshoeing they had first devised, and still continued to employ. Both the horseshoe and the pointed arch, thus used, were, essentially, nothing but alternative methods of securing a pleasing form in the stilts that were necessary to keep the bounding, and especially the transverse, arches nearly as high as the crown of the diagonals when these were semi-circular, the necessary condition of stability.

It follows, of course, that where the pointed arch is thus used in vaulting it must impose its own strong and elegant form on the *wall-wedges* or component surfaces of the vault it contains, which now find their highest development and furthest reach. They had already, in the earlier Romanesque, proved themselves supple and adaptable, but now their outer limits are defined by arches as supple and adaptable as themselves. Henceforth, then, it

mattered not what might be the shape or proportions of the space to be covered—rectangular or curved, square or oblong; nor even the relation which its vault must keep to those of the adjoining compartments of the plan, possibly very different. The bounding arches, if pointed, could reach any height, while the vault faces, sensitively alive to their new liberty, followed the lead given them, and brought a new unity—that of Gothic Architecture—into every part of the building which they composed. Plainly, a better balance of parts and a higher harmony in proportions were thus added to mere stability, and put within the reach of every craftsman who cared to learn and use the new methods.

The first movement towards the use we have been describing would seem to have occurred in Italy as early as the tenth century. At Pisa both the Duomo and the Church of San Paolo a ripa d'Arno possess the pointed arch in a constructive sense; the former in the aisles, where it is used to bring their intermediate arcades high enough to combine well with those of the great central nave which rest on much more lofty columns; the latter in the nave where it seems used tentatively, as an aid to an irregular stilt which serves to equalise arches that rest on columns of unequal length. Now the Duomo of Pisa was planned in 1063, and, tradition says, upon the model of San Paolo, which must therefore have been earlier still. For proof of this relation it is not necessary to carry the latter church in its present form as far back as 805, the date of its first consecration; the use of the pointed

arch, clumsy and hesitating at San Paolo, frank and free in the Duomo, is quite sufficient for our purpose. Thus we reach with tolerable certainty an idea of the centre from which the new constructive method was diffused ; the reasons for its earliest use, and, approximately, the date when that use began to prevail in Italy.

An examination of the actual application of the pointed arch to vaulting will not disturb these conclusions. There is an initial probability that it would occur first where the Romanesque methods were most difficult of execution, and therefore in the vaulting of curved aisles such as were sometimes carried round the chancel. How great that difficulty was may be seen in the clumsy expedients used by Lombard architects in the roofing of the crypt of San Salvatore, Brescia (eighth century), and even as late as the tenth century in the apse of San Stefano at Verona. This gives great interest to what may be seen at S. Trinità, Florence, where the crypt, now subterranean but once part of a much earlier church, shows pointed arches and vaults in its tiny curved aisle.

However it may have been first introduced, the vault built on pointed arches soon made way as its power came to be felt. We find it in the western substructure of S. Piero alle Scale, Siena, and, in a still more developed form, in the ancient and now semi-subterranean building of the Badia a Settimo, near Florence. This Badia was founded before 988, and the vaulting in question would seem, therefore, at least, to date from the first half of the eleventh century.

Here, in these early days, we find the pointed vault not only in the aisles, but roofing every transverse bay throughout, leaving the round-arched vault to cover the longitudinal axis of the central nave alone. Such development would surely point to a long previous history of experiment, and would show that we have been moderate in the age we have assigned to the pointed practice in Italy. It is also interesting to note that, judging by the examples cited, the progress of pointed vaulting followed the same course as that taken by the earlier Romanesque form. Commencing in the curve of the apse (S. Trinità), it gradually occupied the aisles (S. Piero alle Scale), and finally the principal nave itself (Badia a Settimo).

One of the most vexed questions in the history of Gothic Architecture relates to the reciprocal influence of Italy and France upon each other, in the matter of the new style of Romanesque. The Italians may with justice claim that its elements, and even its first advances in the early constructive use of the pointed arch, were with them, and may point with justifiable pride to the express statement of Rodolfo Gabro, the contemporary (eleventh century) chronicler, that San Guglielmo carried with him from Novara to Dijon a band of Italian monks and architects whose skill, it is said, was shown in the building of St. Benin, and who brought to Burgundy the Italian methods of construction. On the other hand, it is undoubted that the great period of development in the Italian Gothic coincides with the coming of the Cistercians ; and that we must

here reckon with something more than a mere coincidence is plain, for the best buildings of this



style in Italy are, many of them, the great abbeys provided there for this Order. Yet it should not be forgotten that the pointed arch had from the very first been associated with the Benedictines, of which

Order the Cistercians were but a Reform. And if the progress we have noted during the eleventh century had, as was likely, brought Italian architects to a reasonable proficiency in the following age, where could they have more naturally found scope for the full display of their talents than just in the erection of the new churches which pious liberality was everywhere raising for the Cistercians ?

When we turn to examine the monuments themselves it would seem, indeed, that French influence must have counted for less in this architecture than has been often supposed. Take for example the Cistercian Abbey of San Galgano, in the province of Siena. What remains of the façade is purely Lombard of a plain and severe beauty, and the whole Gothic of the interior shows that transitional character which the style never lost in Italy ; many of the aisle arches combining the pointed form with a marked stilt, just like those at San Paolo, Pisa. It is worth notice too, as a matter of technical detail, that the arch voussoirs are often cut on the " Tuscan " system, that is, they radiate from one centre as if the arch were round, not pointed. And the wall-beam of the aisle roof was held to the clerestory by a row of just such stone hooks as Italian domestic building of the time shows on almost every palace façade. Padre Libanori's statement that the architect was a certain Curzio, of Chiusi, may lack confirmation ; but the Abbey itself, when compared with such a building as the Palazzo Tolomei at Siena, appears to show distinctly enough the same Italian, and we may add even local, origin.

Leaving, however, this difficult and much disputed point, we may at least affirm without reserve that



the Gothic Romanesque had its great period in Italy
from the year 1150 onwards through the first half

of the thirteenth century. This is a matter not too well known out of Italy itself, yet the series of great monuments which prove it are such as any country might well be proud of; and only their situation in remote country places can in part excuse the neglect with which they have been treated by foreigners, and the consequent misapprehension of this great Italian style by those who have never known of, far less studied, its chief glories. The splendid line begins with the Church of S. Maria a Fiume at Ceccano (1160), and comprehends, among many, such buildings as S. Clemente at Casauria (1176) of the Benedictines, and S. Maria di Arabona of the Cistercians, both in the Abruzzi; Fossanuova, near Piperno (1187-1208); Casamari, near Frosinone; San Martino, near Viterbo; San Galgano, Siena; and Valvisciola, Velletri. Italy may surely claim that her Gothic be studied and reckoned with here, rather than in the better known buildings of later times, the cathedrals and churches of the great cities, richer indeed but not so pure, and brighter but with the autumn colours which every great art shows only in its decay.

For decadence set in much earlier in Italy than it did north of the Alps. At first it is not very marked, and during the thirteenth century many a church at Viterbo, Anagni, Piperno, Ferentino, Amasino and elsewhere continued worthily the style of the great abbeys which had inspired them. The movement, as revealed by these names, had Latium for its land of departure, and only by degrees led on to the cathedrals of Siena, Orvieto, Florence, and

Milan. Progress here is undoubted, but hardly pleasing, for in these later examples of the fourteenth century purity of style is lost, and a world of decadent ornament takes its place. Yet it is from examples like these, and very much because they lie on the main routes of travel, that we have been accustomed to form our ideas of Italian Gothic.

Even such buildings, however, have their own lesson to teach, and it is this. When an artistic style is at its height it is self-sufficient, but before full strength has come, or after it has passed, purity must not be looked for, but compromise; either such as that in which the style, not yet sure of itself, timidly appears as a promising graft on the stock of former art, or that other and fatal combination when a style, no longer strong, casts about for support among the forms it had thought for ever to supersede.

With regard to Gothic Architecture, then, there is no Italian style of building with which we do not find it associated, either in growth or decay, from its dawn under the Basilican arcades of Pisa till its close at Florence, let us say, where in the Bigallo the coming Renaissance drops, as it were by anticipation, the veil of its round arched style over what is internally and essentially a pure and pleasing Gothic vault—very much as, on a larger scale, the like combination formed at a later date S. Maria della Neve at Siena (1470), or the great Certosa of Pavia. Now on such an association it is easy and useful to found a natural classification of these imperfectly developed or decadent buildings. The *Basilican* type of Gothic we have already noticed at Pisa, and, in

another sense, it appears also in many churches—such as S. Pietro of Perugia—where the combination is due to later additions. The *Byzantine* Gothic forms a second class, with S. Antonio of Padua for its chief example. The *Romanesque*, as we know, stands originally in a much closer relation than any other style to the Gothic, which is but its special development under the power of the pointed arch. So much is this the case in Italy that it would be difficult to find any building, even of the best period, whose Gothic entirely distinguishes itself from the style which gave it birth. A crowd of examples at once occur to prove what is even more natural ; that in its decline Italian Gothic used yet more largely the forms out of which it arose. At Milan, for instance, the cathedral façade is built on Lombard lines ; at Florence, the vast nave-bays of S. Maria del Fiore tell the same tale, for this disposition or parts, so common in later Italian Gothic, arises from a new insistence on what we noted as one of the original principles of the Romanesque, where pillars are not multiplied, as in the Basilican or Byzantine, but collected into compound columns, with the inevitable result that wide and even wider spaces come to divide these clustered supports.

The unquestionable fact that Gothic Architecture never reached in Italy the sufficient life and splendid development which mark its reign in France, was probably due to the varying views and aims of French and Italian builders. The former “saw” lines almost from the beginning of the style, and studied them by preference, especially in the

diagonals of their vaults. The latter on the other hand were always devoted to the use and development of surfaces, as we have tried to keep before us constantly by studying each successive style, above all, in the characteristic form it gave to the *wall-wedge*. The result of this national difference, then, was that while in France the late and great decay of Gothic ended by eating away the walls together, as by some corrosive, leaving only the structural lines to assert themselves, as in a skeleton-leaf; in Italy not the wall alone but especially the vaulting surfaces were cherished as the great opportunity for painted decoration. To these much was sacrificed, and their survival laid fair ground for the appearance and at last the triumph of another style: the revived classicism of the Renaissance.

"Gothic," in the esoteric French sense of the word, can only find full scope, however, in the building of churches; when we come to civil and domestic architecture simplicity of construction must nearly always reduce style to the question of appropriate ornament. Hitherto we have given scarcely a passing notice to the civil architecture of Italy, because its remains dating from times earlier than the Gothic period are few and unimportant. One or two houses and well-heads in Venice show early and immediate Byzantine influence in their inlaid marbles and rich carving. Some at Pisa seem modelled on the Saracenic buildings of Sicily, and Viterbo, Perugia, San Gimignano, and many a town beside, have examples of the homes inhabited by men who saw the early and palmy days of the

Romanesque: examples much neglected, even in Italy, because considered common and insignificant.

It is far otherwise in the Gothic period, even of the decadence. During the thirteenth and four-



teenth centuries many splendid civic and domestic buildings were erected for Communal assemblies or private dwellings. In the bewildering multitude of such examples we may at least select those of Siena and Venice as offering the masterpieces of two varying styles. The Palaces of Siena, built of travertine with grouped Gothic windows divided by colonettes of white marble, tend to the Romanesque and even the Lombard manner, as appears in the sculptured beasts that still lean and leer from the springing of the arches; they admit and display only a secondary influence of the East in the fine leaf-forms of these arches themselves, and in the occasional flat reticu-

lated ornament which defines their borders. At Venice, on the other hand, this latter influence is direct, constant and commanding. Here the arches show the double flames of the ogee; the cornice bears the same forms in an upstanding ornament of singularly Moorish taste; the white marble house-fronts have inlays of colour borrowed from Byzantium, and, over all, the characteristic Venetian chimney is nothing but a hollow Byzantine column with flower-pot capital complete. Daring, original, eminently successful, shines the Palace of the Doge: the last great monument of Venetian Gothic, which carried the charm of that composite style as in a triumph over the full flood of the rising Renaissance.

CHAPTER VI

RENAISSANCE ARCHITECTURE

AUTHORITIES : Alberti, *Trattato d'Architettura*, 1485 ; Vitruvius, *De Architectura*, with commentaries of the period ; Serlio, *L'Architettura*, 1551 ; Vasari, preface to his *Vite* ; Laspeyres, *Die Kirchen der Renaissance in Mittel-Italien*, 1882 ; Anderson, *The Architecture of the Renaissance in Italy*, 1898.

THE architectural change which appeared at Florence in the first quarter of the fifteenth century is commonly thought of as merely one department of the general classic revival, signalised here by a return to the building methods of Rome. This, however, is only true in part ; for *ars non fit saltum*, and the substance of the new style, as distinguished from its decoration, was certainly evolved from what had preceded it.

The Gothic builders had left to their successors the legacy of a great, and as yet unsolved, problem. The four main architectural elements which Rome petrified, had, as we have seen, been extricated and combined : the column and arch by Basilican

builders, the column arch and dome by those of Byzantium, the column arch and vault in the Romanesque and Gothic schools. One supreme combination, however, still awaited—and still



awaits—full realisation: that in which all four elements should be joined, and the dome add its incomparable crown to the powers and beauties of the rest. Slaves of the ring, as in some Eastern tale, these would gain, not lose, in their new

submission, each assuming final character from its fitting place as member of the mighty whole. Something like this was Brunelleschi's dream, which he realised, if not fully, yet how nobly in the cupola of Florence. In that dream Renaissance architecture was born.

The Gothic of the cathedral, to which Brunelleschi brought his dome, was already decadent, and when he finds himself free, as at San Lorenzo, it is upon the Central Byzantine *motif* that he counts for the realisation of his dream. Once more, then, we meet the repeated phenomenon of Italian art, in which its spirit revives under the breath of Greece and of the East. Even as a whole the Renaissance was first Romaic, then Roman, encouraged by the teaching of Greek in Florence, and symbolised in the Council of that city (1439), whose decrees for the union of East and West were extended in both languages, and signed by the Emperor of Byzantium as well as the Pope of Rome. The architecture of San Lorenzo discards the Gothic vault, affirms the Byzantine combination with its pendentives, and roofs its aisles with *volte-a-vela*, which are but modifications of the central *motif*. It was no mere caprice which gave to the *Hypnerotomachia*—that singular text of the new style—its Greek title; or which led the Malatesta to bring marble and mosaic from S. Apollinare at Ravenna to their church of San Francesco at Rimini, designed by Alberti. The Romaic spirit was central in the new architecture, it vivified the whole.

Yet to what did it bring life? To the Roman,

the national spirit, never wholly dead and now ready to revive again. This was the age of literary discovery ; and among the chief prizes of that enthusiasm was the book of Vitruvius, "De Architectura" (found 1414), which mightily encouraged a new study of the classic monuments. Here Brunelleschi, *seeing* his cupola from without as well as within, found that drum which distinguished his chief work alike from its prototype of San Giovanni or its rival at Constantinople ; and hence his followers resumed the Roman vaults of penetration, which they came to prefer to the Gothic form, or even to the semi-Byzantine *volte-a-vela*, in many of their buildings, while the same source gave them the decorative device of the broken entablature between column and arch, which recalls in San Lorenzo the buildings of the late Empire. Alberti and Michelozzo are the chief names in the school of Brunelleschi, and their work may be considered to mark an epoch : that of the first or constructive period of Renaissance Architecture.

Next follows what has been called "the golden age" of the new style, which may be counted from the date of the fall of Constantinople to the close of the first quarter of the sixteenth century. The return to the classic *motif* and detail is now accentuated ; and this movement gains strength in the school of Milan, which Da Vinci had succeeded in substituting, in great measure, for the more irregular and individual training of former times. Vitruvius, now printed, was, of course, the textbook ; the Classic Orders—Doric, Ionic, Corinthian

—were studied in the formulæ of the “De Architectura,” and there was real danger that the new style might have hardened into pedantry and gone the way of all mere imitation.

But Bramante leads this age as Brunelleschi had done the former, and in Bramante lives the free spirit of the Greek world and lifts his Roman forms to the height of free art and living power. More fortunate than his predecessor, he was free to design his great church from the foundation; and he based his plan for St. Peter's on the Greek Cross as best fitted to bear and display the dome he had in view—but left for another to build. This idea is not peculiar to Bramante, but belongs to the spirit of the whole style. Brunelleschi had early (1420) used it in his Capella dei Pazzi at S. Croce, as if to show what he might have done for the Duomo of Florence had his hands been free. San Gallo repeated it (1485) with exquisite taste in his noble S. Maria delle Carceri at Pistoia, as Francesco di Giorgio did in the same year at Cortona, when he built S. M. del Calcinajo. Could it but keep lines like these the new architecture was living and safe.

The third period, including the rest of the sixteenth century, was as surely opened and ruled by the genius of the great Michel Angelo as the first had been by Brunelleschi, and the second by Bramante. Bramante, however, had not altogether saved his time, and we must now distinguish, with Milani,* between the party of tradition—Palladio, Sansovino, and San-

* See his excellent *Manuale d'Architettura*, Milan, Hoepli.



Photo Alinari

ST. PETER'S, ROME

Mr. Tolson

micheli—who followed in a formal spirit the precepts of Vitruvius, and Michel Angelo who stood for the reaction, and gathered a school whose power lay in the recovery of that individuality which makes for life and progress. The spirit of their great leader was essentially Greek, as his statues alone would show—were there not further proof. At St. Peter's he re-affirmed the plan of Bramante, designing on his own account an apse with a semidome to close the building where it looked to Constantinople. This, unfortunately, he did not live to complete, and the great cupola, his masterpiece, is now interfered with by the nearer Latin lines of the building which Maderno carried out. But still, in spite of all, it stands—or hangs rather, so lightly is it set—the king of domes, as its “sister” at Florence is the acknowledged queen : and how deeply this age-long problem of the dome preoccupied the architects of the time is seen, not in the work of Michel Angelo alone but in that of his followers as well. Alessi of Perugia, for instance, has left us his fine S. M. di Carignano at Genoa, where the slight attention spent on the classic entablature, the insistence on the Greek ground-plan, and the subordination of all to the eminence and success of the dome, show plainly where the stress of thought felt in these days and in that school.

The *Barocco* of the seventeenth century may be compared to the Flamboyant Gothic, just as—to complete the analogy—the buildings of the eighteenth century, graceful but frigid, suggest the Perpendicular manner. The *Barocco* lives in

curved lines, which Bernini lays out grandly in the Piazza of St. Peter's, and Borromini twists in his undulating façades. Lesser hands try the tortured effects of elliptical and other eccentric arch-forms, and, still unsatisfied, mask these in papier-mâché and plaster, fashioned in billowing clouds, flying angels and wind-blown draperies. Yet amid all this excess rises (1660) S. M. della Salute at Venice, where the masculine intelligence of Longhena attempts once more the ancient task. His device of the double-curved radiating buttresses about the base of the dome is characteristic of the age; and none the less a clever addition to the resources of art when it seeks to solve the great problem. And even in the eighteenth century Mondovi could boast the building of her Santuario, where Francesco Gallo (1733) raised a cupola, still the not unworthy successor of those at Florence and Rome.

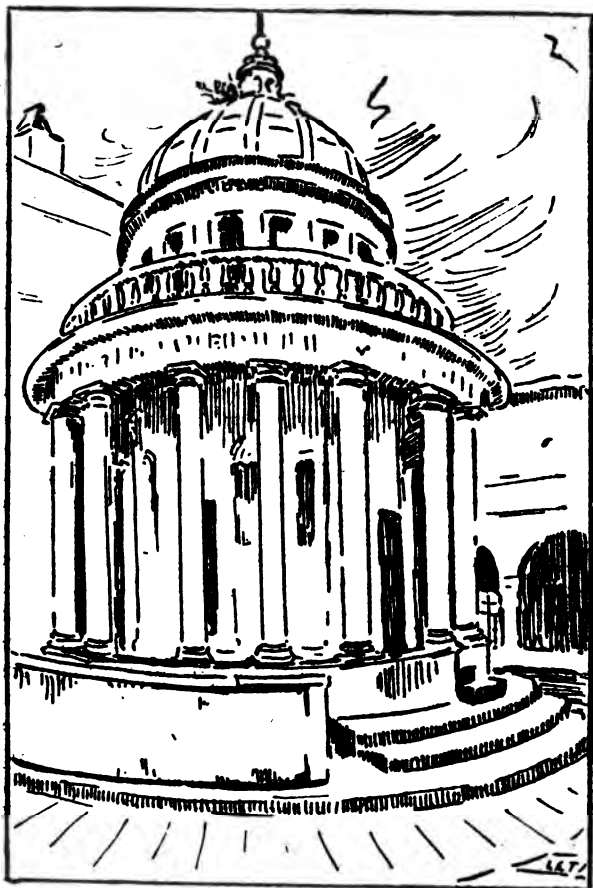
All too little space is left us to speak of the splendid civil and domestic architecture which Italy owes to the Renaissance. The Palazzo of these days was as certainly a modification of the *insula* or *dado*, as that of Gothic times had been an expansion of the earlier towers of dwelling and defence. The courtyard of the fifteenth-century palazzo represented the heart of the *insula*: the open space on which the backs of its surrounding towers looked out. Its main fabric, hanging forward on heavy brackets over the street and built towards the courtyard in tiers of galleries, recalled, and sometimes actually enclosed, the ancient system of movable wooden balconies and hoardings where the



PIAZZA OF ST. PETER'S, ROME

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inhabitants had been wont to seek sun and air, the view of festal processions, or, in war, a sure vantage ground for defence. But this modification soon led to development. Houses were built on these lines, but from the foundation ; hence without projection, which, on the street front, came to be forbidden. We speak chiefly of Florence, the centre of the new style, and feel that here if anywhere the architects of the Classic revival touched the secret of that Rome they so revered. Since the days of the ancients Italy had never seen such masses, as of living rock—the foundations and fabrics of the Pitti (1440); Medici (1440); and Strozzi (1490) Palaces. It is the full static pause of the Romans repeated in these buildings which does more to impress them with the Classic character than all the decorative reminiscences which are seen in their details. And to this strength abundant grace is wedded, in the wide caves and deep loggie with their kindly shade and shelter ; abundant charm in the courtyards whose gallery fronts come to rest on arches so wide and fine that the eye has an ever renewed pleasure in the discovery of their subtle curves. For these galleries frescoed decoration in the Pompeian manner was revived and adapted by the best artists of the time, and on the fronts of such houses shone, *simplex munditiis*, the delightful decoration of *graffitto*, strong enough to brave all weathers and just so fine as duly to prepare the visitor for what awaited his eye within.

This architecture did not keep only to the cities, but came to possess the quiet places of the country

as well. Buontalenti, one of the best in Michel Angelo's school, built thus for Francesco dei Medici the Villa of Pratolino; and the sixteenth and following centuries show an infinite number of such country houses. Among these the Villa Lante at Viterbo, the Villa of Collodi, near Pistoia, and the eighteenth-century Palace of Caserta distinguish themselves by the magnificent way in which their architecture is supported and enhanced by surrounding gardens; where statuary and elaborate waterworks carry the architects' ideas into the domain of landscape itself, and make these Villas and their immediate grounds a charming unity. Here, then, we leave Italian Architecture to rest and recover strength, in this fresh air and amid these fair scenes,—ere the storm and stress of modern life wake her to strive for such success as in our own day she has been able to attain.

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